(FILE 'HOME' ENTERED AT 12:28:00 ON 09 AUG 2002)

FILE 'REGISTRY' ENTERED AT 12:28:08 ON 09 AUG 2002
L1 1 S ISOQUERCITRIN/CN
L2 1 S QUERCETIN/CN
L3 1 S GALANGIN/CN
L4 0 S PROPOLIS/CN
L5 1 S CHRYSIN/CN
L6 2 S ASCORBIC ACID/CN
L7 1 S RUTIN/CN

FILE 'CAPLUS, EMBASE, BIOSIS, USPATFULL' ENTERED AT 12:29:16 ON 09 AUG 2002

FILE 'CAPLUS, EMBASE, USPATFULL, KOSMET' ENTERED AT 12:29:35 ON 09 AUG 2002
L8 1381 S L1 OR ISOQUERCITRIN OR (ISO QUERCITRIN)
L9 1056 S L1
L10 143675 S L6 OR (ASCORBIC ACID) OR (VITAMIN C) OR (VIT C)
L11 0 S L9 (10W) L10
L12 2 S L8 (10W) L10
L13 28271 S L2 OR QUERCETIN OR L3 OR GALANGIN OR L5 OR PROPOLIS OR CHRYSI
L14 372 S L8 (10W) L13
L15 1419969 S PHARMAC######## OR COSMETIC#
L16 35 S L14 AND L15
L17 32 DUPLICATE REMOVE L16 (3 DUPLICATES REMOVED)

=> s l17 not l12
L18 32 L17 NOT L12

=> d ibib ab 1-32

L18 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:571289 CAPLUS
TITLE: HPLC analysis of the flavonoids in **pharmaceutical** preparations from Canadian goldenrod (Solidago canadensis)
AUTHOR(S): Apati, P.; Szentmihalyi, K.; Balazs, A.; Baumann, D.; Hamburger, M.; Kristo, T. Sz.; Szoke, E.; Kery, A.
CORPORATE SOURCE: Department of Pharmacognosy, Faculty of Pharmacy, Semmelweis University, Budapest, 1085, Hung.
SOURCE: Chromatographia (2002), 56(Suppl.), S65-S68
CODEN: CHRGB7; ISSN: 0009-5893
PUBLISHER: Friedrich Vieweg & Sohn Verlagsgesellschaft mbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Solidago canadensis L., Canadian goldenrod (Asteraceae) has been used in European phytotheraphy for centuries as a component of urol. and antiphlogistical remedies. High-performance liq. chromatog. (HPLC) coupled with diode-array detection (DAD) and online mass spectrometry (MS)
has been used for the sepn. and quantification of phenolics (chlorogenic acid, caffeic acid, kaempferol-3-O-.alpha.-L-rutinoside (nicotiflorin), quercetin-3-O-.beta.-D-rutinoside (rutin), quercetin-3-O-.beta.-D-galactoside (hyperoside), quercetin-3-O-.beta.-D-glucoside (**isoquercitrin**), **quercetin**-3-O-.beta.-D-rhamnoside (quercitrin), kaempferol-3-O-.alpha.-L-rhamnoside (atzelin) and quercetin from Solidaginis herba. Exts. have been obtained using different

technologies. Three aq. and three alc. exts. were studied sep. Reversed-phase high-performance liq. chromatog. sepn. of polyphenols on octadecyl sorbent Hypersil was performed, using acetonitrile: acetic acid 2.5 vol./vol.% as eluent in gradient elution. Our results confirm previous reports concerning the presence of several flavonoids. Quantification of the main quercetin glycosides in **pharmaceuticals** is also reported.

L18 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:213976 CAPLUS
DOCUMENT NUMBER: 132:216845
TITLE: Efficacy of orally administered extract of red vine leaf AS 195 (folia vitis viniferae) in chronic venous insufficiency (stages I-II). A randomized, double-blind, placebo-controlled trial
AUTHOR(S): Kiesewetter, Holger; Koscielny, Jurgen; Kalus, Ulrich; Vix, Jean-Michel; Peil, Hubertus; Petrini, Orlando; Van Toor, Bert S. J.; De Mey, Christian
CORPORATE SOURCE: Institut fur Transfusionsmedizin und Immunhaematologie, Universitatsklinikum Charite, Berlin, Germany
SOURCE: Arzneimittel-Forschung (2000), 50(2), 109-117
CODEN: ARZNAD; ISSN: 0004-4172
PUBLISHER: Editio Cantor Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Red vine leaf ext. (RVLE) is a herbal medicine contg. several flavonoids, with quercetin-3-O-.beta.-glucuronide and **isoquercitrin** (**quercetin**-3-O-.beta.-glycoside) as the main components. Objective - To assess the efficacy and safety of once-daily doses of 360 and 720 mg RVLE (**pharmaceutical** ext. code AS 195; Antistax Venenkapseln) compared to placebo in patients with stage I and incipient stage II chronic venous insufficiency (CVI). Design - A 12-wk, randomized, double-blind, placebo-controlled, parallel-group, multi-center study. Patients - Male and female outpatients aged 25 to 75 yr with stage I to stage II CVI (i.e. without extensive trophic changes), not having any other significant medical conditions and not treated with compression stockings, diuretics or other drugs affecting fluid balance. Intervention - Patients were randomly assigned to a double-blind treatment with placebo, 360 mg AS 195 or 720 mg AS 195 once daily for 12 wk, preceded and followed by a single-blind 2-wk placebo treatment for baseline run-in and end-of-trial washout, resp. Study criteria were evaluated at baseline, after 6 and 12 wk of treatment and 2 wk after discontinuation of treatment. Results - Of the 260 patients enrolled and randomized, 219 completed the study in accordance with the protocol. In the intention-to-treat anal. (N = 257), the mean (.+-. SD) lower leg vol. (measured by water displacement plethysmog.) of the patients treated with placebo (N = 87) increased by 15.2.+-.90.1 g (displaced water mass) and by 33.7.+-.96.1 g after 6 and 12 wk compared to baseline. In contrast, for patients treated with AS 195, lower leg vol. decreased, and after 12 wk of treatment, the difference in mean lower leg vol. between the active treatment groups and the placebo group was -75.9 g (95% CI: -106.1 to -45.8 g) and -99.9 g (95% CI: -130.3 to -69.6 g) for the group treated with 360-mg AS 195 (N = 86) and 720-mg AS 195 (N = 84), resp. The changes

in calf circumference showed a similar pattern: in patients treated with AS 195, both the higher dose (720 mg) and, albeit to a lesser extent, the lower dose (360 mg) resulted in a clear redn. in circumference over time, whereas, circumferences remained largely unchanged in patients treated with the placebo (95% CI of the estd. treatment effects vs. placebo after 12 wk: -1.40 to -0.56 cm and -1.73 to -0.88 cm for 360 and 720 mg AS 195, resp.). These differences were statistically significant ($p < 0.001$). The redns. in ankle circumference were qual. similar but quant. less marked. Subjectively, there was an improvement in key CVI symptoms (VAS) at 6 wk with all treatments, but a further improvement at week 12 was seen only in the active treatment groups; at 12 wk, the changes compared to baseline were significantly greater ($p < 0.001$) in both active treatment groups than in the placebo group. The treatments were well tolerated; Adverse events were rare and usually mild. Two adverse events (AEs) during treatment with the placebo led to hospitalization and were hence labeled as "serious". Three further patients were withdrawn because of AEs which occurred during treatment with the placebo. Conclusion - Once-daily doses of 360 and 720 mg AS 195 were confirmed to be safe and effective in the treatment of mild CVI, reducing significantly lower leg edema and circumference while improving key CVI-related symptoms to a clin. relevant extent. The edema redn. is at least equiv. to that reported for compression stockings and/or other edema-reducing agents. The higher dose was as well tolerated as the lower dose but resulted in a slightly greater and more sustained improvement.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:756466 CAPLUS
DOCUMENT NUMBER: 130:100741
TITLE: Identification by high-performance liquid chromatography-diode array detection-mass spectrometry and quantification by high-performance liquid chromatography-UV absorbance detection of active constituents of hypericum perforatum
AUTHOR(S): Brolis, M.; Gabetta, B.; Fuzzati, N.; Pace, R.; Panzeri, F.; Peterlongo, F.
CORPORATE SOURCE: Indena S.p.A. Laboratori Ricerca e Sviluppo, Via Don Minzoni, Milan, 20090, Italy
SOURCE: Journal of Chromatography, A (1998), 825(1), 9-16
CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hypericum perforatum is a medicinal plant which has been known in traditional medicine as an anti-inflammatory and healing agent. Nowadays, the alc. ext. of its aerial parts finds wide application for its antidepressant activity. A high-performance liq. chromatog. (HPLC) method for the identification of its constituents using a wide pore RP-18 column and a water-methanol-acetonitrile-phosphoric acid mobile phase system was developed. The identification of its flavonoid, naphthodianthrone and phloroglucinol constituents was performed using combined HPLC-diode array detection (DAD) anal., HPLC-thermospray and HPLC-electrospray mass spectrometry. Chlorogenic acid, quercetin, quercitrin,

isoquercitrin, **rutin**, hyperoside, I3,118-biapigenin, pseudohypericin, hypericin, hyperforin and adhyperforin were sepd. by an aq. phosphoric acid-acetonitrile-methanol gradient within 50 min. The quantification of the above constituents was performed using rutin as an external std.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:444923 CAPLUS
DOCUMENT NUMBER: 125:96352
TITLE: High performance liquid chromatographic method for purity determination and quantitative analysis of rutin and its **pharmaceuticals**
AUTHOR(S): Zeng, Gemin; Yu, Danhui; Qiu, Simin; Guo, Xiaohua; Sakai, M.; Li, Zhiliang
CORPORATE SOURCE: Hunan Univ., Chansha, 410082, Peop. Rep. China
SOURCE: Fenxi Kexue Xuebao (1996), 12(1), 23-26
CODEN: FKXUFZ; ISSN: 1006-6144
PUBLISHER: Fenxi Kexue Xuebao Bianji Weiyuanhui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Studies on a high-performance liq. chromatog. method were made for purity anal. and microamount quantitation of rutin and its **pharmaceutical** prepns. The proposed method, with both high precision and/or accuracy and good specificity and/or selectivity, can be suitably used for routine anal. Sepn. was performed on a C-8 column as the stationary phase using phosphate buffer soln. modified by THF (THF) as a mobile phase as well as uv 280 nm as the detecting wavelength. The detection limit was 0.5 .mu.g/mL and the impurities as little quantity as 0.05% were detd., if present. The developed method was applied to anal. of various practical samples with good results.

L18 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:498417 CAPLUS
DOCUMENT NUMBER: 122:265924
TITLE: Preparation of quercetin 3-O-glycosides and method for modification of water-sparingly soluble flavonoid using the glycosides
INVENTOR(S): Washino, Ken; Iwata, Mitsuhiro
PATENT ASSIGNEE(S): Saneigen Efu Efu Ai Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07010898	A2	19950113	JP 1993-180942	19930624

AB Quercetin 3-O-glycosides (I; Glc = glucose; n.gtoreq.1 integer) are obtained by glycosidation of quercetin 3-monoglucoside and/or rutin in the presence of glucosidase or transglucosidase. A water-sparingly sol. flavonoid (e.g. rutin, quercetin, isoquercitrin, morin, myricitrin, and

myricetin) is modified to improve the soly. by drying a soln. contg. a water-sparingly sol. flavonoid and 1 or .gtoreq.2 of the quercetin 3-O-glycosides I. The said soln. is obtained by dissolving a solid water-sparingly flavonoid in a soln. of 1 or 2 of the quercetin 3-O-glycosides in 1 or .gtoreq.2 solvents selected from C1-4 aliph. alcs., an aq. medium, and water. This modification markedly improves the soly. of a water-sparingly flavonoid without changing the structure and effectiveness of the flavonoid which is useful as a discoloration inhibitor, an inhibitor of flavor change, and an antioxidant for foods, a UV-absorbing agent for **cosmetics**, and a plant growth regulator in agriculture. Thus, 500 g rutin was suspended in 100 L H2O and 100 g naringinase was added followed by heating the mixt. (pH 7) at 50.degree. for 5 h, concg. the reaction mixt. to 50 L, cooling the conc., and filtering the pptd. quercetin 3-O-glycosides. Water (100 L) was added to the glycosides and then 800 g corn starch was added followed by homogenizing the mixt., adding 200 mL cyclodextrin glucanotransferase (CGTase), and heating the resulting mixt. at 55.degree. and pH 6.8 for 12 h. The reaction soln. was passed to an adsorption column (Diaion HP-21) to adsorb the quercetin 3-O-glycoside and the column was eluted with 50% (vol/vol) aq. MeOH to give, after concn. to dryness, 550 g solid contg. quercetin 3-O-glycoside I (R = H; n = 1, 2, 3, 4, 5, 6, 7, .gtoreq.8) in 23, 17, 12, 9, 7, 4, 2, and 2 mol%, resp. For an example of the flavonoid modification, 100 g rutin and the latter glycoside (15 g) were suspended in hot water 1.5 L (80.degree.) and 8.5 g NaOH flakes were added portionwise to give a homogeneous soln. which was made pH 6.5 by adding 20 wt.% H2SO4. The soln. was spray-dried to give a yellow solid (100 g) which (5 g) was immediately dissolved to give a clear soln. when 100 mL water was added and stirred at 20.degree. for 1 h. For comparison, when a mixt. of 4.3 g rutin and the glycoside 0.7 g was added to 100 mL water and stirred at 20.degree. for 1 h, it did not become a homogeneous clear soln. and 4.2 g rutin was recovered by filtering the suspension.

L18 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:421994 CAPLUS
DOCUMENT NUMBER: 122:248099
TITLE: Flavonol glycosides in Houttuynia cordata
AUTHOR(S): Fuse, Jun-ichi; Kanamori, Hisayuki; Sakamoto, Ikunori; Yahara, Shoji
CORPORATE SOURCE: Hiroshima Prefectural Inst. Health Environment Sci., Hiroshima, 734, Japan
SOURCE: Natural Medicines (1994), 48(4), 307-11
CODEN: NMEDEO; ISSN: 1340-3443
PUBLISHER: Japanese Society of Pharmacognosy
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Five flavonol glycosides, therapeutic quercitrin (I), **isoquercitrin** (II), afzelin (III), hyperin (IV) and **rutin** (V) were isolated from the terrestrial part of Houttuynia cordata collected during the flowering season. The quant. anal. of the five flavonol glycosides in H. cordata by HPLC revealed the following results. (1). All the leaves, spikes and stems contained these five flavonol glycosides, and the content was the highest in leaves. (2) The main flavonol glycosides in spikes were I and IV. (3) The flavonol glycoside

contents in leaves before and during the flowering season were about the same.

L18 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:105152 CAPLUS
DOCUMENT NUMBER: 120:105152
TITLE: Separation of monoglucosylrutin from rutin with rhamnosidase
INVENTOR(S): Iida, Sumihisa; Yumoto, Takashi; Gunji, Yukinobu; Takaya, Ikuo
PATENT ASSIGNEE(S): Toyo Sugar Refining, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05199891	A2	19930810	JP 1991-63358	19910327
JP 09025288	A2	19970128	JP 1996-173495	19960703
JP 3155466	B2	20010409		

PRIORITY APPLN. INFO.: JP 1991-63358 A3 19910327
AB A mixt. of monoglucosylrutin (I) and rutin is treated with .alpha.-1,6-rhamnosidase and resulting mixt. of I and isoquercitrin is treated with alcs. to sep. I by crystn. .alpha.-Glucosidated rutins are known to have good water-soly. and I may be useful as anti-inflammatory agent, antioxidant, UV-absorber, etc., for **cosmetics**. .alpha.-Glucosidated rutins and rutin were treated with ascorbic acid and Glucozyme (glucoamylase) in H2O at 55.degree. for 24 h, treated with Hesperindinase 2 (.alpha.-1,6-rhamnosidase) at 55.degree. for 24 h, and treated with MeOH to manuf. I.

L18 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:240541 CAPLUS
DOCUMENT NUMBER: 118:240541
TITLE: **Pharmacognostic** study on Euphorbia ebracteolata. (I). Flavonoid constituents
AUTHOR(S): Lee, Sang Cheol; Ahn, Beung Tae; Park, Woong Yang; Lee, Seung Ho; Ro, Jai Seup; Lee, Kyong Soon; Ryu, Eung Kul
CORPORATE SOURCE: Coll. Pharm., Chungbuk Natl. Univ., Cheongju, 360-763, S. Korea
SOURCE: Saengyak Hakhoechi (1992), 23(3), 126-31
CODEN: SYHJAM; ISSN: 0253-3073
DOCUMENT TYPE: Journal
LANGUAGE: Korean
AB Four flavonoids were isolated from the aerial parts of E. ebracteolata. On the basis of chem. and spectroscopic evidence, the structures of these compds. were established as **isoquercitrin**, **rutin**, kaempferol 3-O-rutinoside and **quercetin** 3-O-(2''-O-galloyl)-.beta.-D-glucoside which was the main flavonoid component in this plant. This is the first example of isolation of flavonoids from E. ebracteolata.

L18 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:183102 CAPLUS
DOCUMENT NUMBER: 118:183102

AUTHOR(S): Takizawa, Nobuo
CORPORATE SOURCE: Cent. Res. Lab., Yomeishu Seizo Co., Ltd., Nagano, 399-46, Japan
SOURCE: Shoyakugaku Zasshi (1984), 38(2), 194-7
CODEN: SHZAAY; ISSN: 0037-4377
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Eight flavonoids were isolated from 50% methanolic ext. from branches of L. umbellata var. membranacea (Maxim.) Momiyama; they were identified as kaempferol [520-18-3], quercetin [117-39-5], afzelin [482-39-3], avicularin [572-30-5], quercitrin [522-12-3], hyperin [482-36-0], **isoquercitrin** [**21637-25-2**], and **rutin** [**153-18-4**] by comparison with authentic samples. Both L. umbellata Thunb. and L. sericea var. glabrata Blume contained all these 8 flavonoids and gave similar patterns when chromatographed.

L18 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:185873 CAPLUS
DOCUMENT NUMBER: 86:185873
TITLE: Phytochemical and **pharmacological** study of preparations from Campanula cephalates and Campanula glomerata
AUTHOR(S): Teslov, L. S.; Geras'kina, S. S.
CORPORATE SOURCE: Leningr. Khim.-Farm. Inst., Leningrad, USSR
SOURCE: Issled. Lek. Prep. Prir. Sint. Proiskhozhd., Mater. Mezhvuz. Nauchn. Konf. (1975), Meeting Date 1974, 33-4. Editor(s): Bereznegovskaya, L. N. Tomsk. Univ.: Tomsk, USSR.
CODEN: 35BFAU
DOCUMENT TYPE: Conference
LANGUAGE: Russian

AB Aerial parts of C. cephalates, collected in Buryatskoi, ASSR, and C. glomerata, from the foothills of Altai, during the blossoming period contained phenolic substances, traces of alkaloids, and small amts.. of coumarins. Among the phenolic substances were flavonoids and phenolcarboxylic acids, which apparently are responsible for the medicinal properties of these plants. C. cephalates yielded rhamnetin, rhamnetin 3-glucoside, rhamnetin 3-galactoside, and isoquercitrin; C. glomerata was more complex, yielding isorhamnetin 3-glucoside and 3-galactoside, hyperoside, **isoquercitrin**, trifolin, **quercetin** 3-glucuronide, and **rutin**. The phenolcarboxylic acids of these two species were derivs. of benzoic and cinnamic acids, with derivs. of caffeic and p-coumaric acids predominating (chlorogenic acid, methyl caffeate, 3-p-coumaroylquinic acid). For **pharmacol**. testing the dried exts. of Campanula, contg. the total phenolic compds., were used. In acute expts. on cats under ether-urethane narcosis, i.v. injection of 10, 25, and 50 mg/kg doses of such exts. temporarily lowered arterial pressure in varying degree. With the ext. from C. glomerata the degree and duration of the hypotensive reaction increased with increasing dose. Dried exts. of C. cephalates in doses of 10 and 25 mg/kg lowered arterial pressure in like degree, but more sharply, than the same doses of C. glomerata ext.; a 50-mg dose intensified and prolonged the hypotensive effect of C. cephalates ext., but to a lesser degree than in the case of C. glomerata.

L18 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1970:30225 CAPLUS
DOCUMENT NUMBER: 72:30225

TITLE: New antidyspeptic agent in hepatic-biliary disturbances
AUTHOR(S): Copelman, Helio
CORPORATE SOURCE: Hosp. IASEG, Brazil
SOURCE: Hospital (Rio de Janeiro) (1969), 75(4), 1463-8
CODEN: HOSOA3
DOCUMENT TYPE: Journal
LANGUAGE: Portuguese
AB A substance extd. from Tilia alburnum had the following compn.: quercetin, quercitrin, **isoquercitrin**, **quercetin** -3-glucoside, **quercetin**-7-rhamnoside, kaempherol, kaempheritrin, astragalin, **rutin** (0.05%), and tiliadin (0.31%). **Pharmacol**. characteristics and clin. results of the treatment of dyspeptic syndromes with this ext. were discussed.

L18 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1968:46990 CAPLUS
DOCUMENT NUMBER: 68:46990
TITLE: Constituents of Eupatorium cannabinum var syriacum
AUTHOR(S): Pagani, Flaminio; Romussi, Giovanni
CORPORATE SOURCE: Univ. Genoa, Genoa, Italy
SOURCE: Farmaco, Ed. Prat. (1967), 22(12), 771-85
CODEN: FRPPAO
DOCUMENT TYPE: Journal
LANGUAGE: Italian
AB A phytochem. study of the components of C. cannabinum var syriacum was performed. This study was undertaken to establish a chem. similarity of this species with other species of Eupatorium. The chem. principles found herein were related to the **pharmacol**. action of the plant. The results indicated that numerous components are responsible for its **pharmacol**. action. Some of the components were listed according to the parts of the plant in which they were located: caffeic acid, chlorogenic acid, fructose, glucose, and taraxasterol were found in the flowers; ascorbic acid, taraxasterol, rutin, chlorogenic acid, caffeic acid, fructans, rutinose, glucose, fructose, rhamnose, and derivs. of p-cumaric acid were found in the stems. **Isoquercitrin**, astragalin, campherol 3-rhamnoglucoside, ferulic acid, choline, taraxasterol, and **rutin** were present in the leaves. Euparine and eupatoriopicrine, water-sol. fructans, rhamnose, glucose, fructose, and rutinose were found in the roots.

L18 ANSWER 15 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001367529 EMBASE
TITLE: The impact of different flavonoid classes on colonic CI(-) secretion in rats.
AUTHOR: Cermak R.; Vujicic Z.; Scharrer E.; Wolfram S.
CORPORATE SOURCE: R. Cermak, Institute of Veterinary Physiology, University of Zurich, Winterthurerstrasse 260, CH-8057 Zurich, Switzerland. cermak@vetphys.unizh.ch
SOURCE: Biochemical Pharmacology, (1 Nov 2001) 62/8 (1145-1151).
Refs: 26
ISSN: 0006-2952 CODEN: BCPCA6
PUBLISHER IDENT.: S 0006-2952(01)00758-4
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
048 Gastroenterology
LANGUAGE: English

SUMMARY LANGUAGE: English

AB The plant polyphenol quercetin was shown to induce a significant CI(-) secretion in intestinal epithelium. In order to elucidate the structural requirements of quercetin and related flavonoids for this activity, we tested the ability of further flavonols and other flavonoids found in edible plants to induce CI(-) secretion which was measured as an increase in short-circuit current (I(sc)) in rat colon. Whereas several flavonols and the flavon luteolin increased I(sc), other flavonoids such as flavanones, flavans, flavanols, and anthocyanidins failed to do so. Two glycosides of quercetin, spiraeosid, and **isoquercitrin**, as well as two methoxylated **quercetin** metabolites, isorhamnetin and tamarixetin, were also able to increase I(sc). We conclude that a 2,3-double bond in conjunction with the 4-oxo group in the C ring and a hydroxylated B ring are necessary for the secretory activity of flavonoids. This activity requires different structural features than those mandatory for the antioxidative properties of flavonoids. Glucosidation and methoxylation of several hydroxyl groups does not necessarily abolish the secretory potential. .COPYRGT. 2001 Elsevier Science Inc. All rights reserved.

L18 ANSWER 16 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2001091130 EMBASE

TITLE: Characterization of antioxidants present in hawthorn fruits.

AUTHOR: Zhang Z.; Chang Q.; Zhu M.; Huang Y.; Ho W.K.K.; Chen Z.-Y.

CORPORATE SOURCE: Z.-Y. Chen, Department of Biochemistry, Chinese University of Hong Kong, Shatin, New Territories, Hong Kong. zhenyuchencuhk.edu.hk

SOURCE: Journal of Nutritional Biochemistry, (2001) 12/3 (144-152).

Refs: 47

ISSN: 0955-2863 CODEN: JNBIEL

PUBLISHER IDENT.: S 0955-2863(00)00137-6

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Hawthorn fruit extract has been shown to have many health benefits including being cardiovascular protective, hypotensive and hypocholesterolemic. The present study was carried out to characterize further the antioxidants of hawthorn fruit and their effect on the oxidation of human low density lipoprotein (LDL) and .alpha.-tocopherol. The dry hawthorn fruit was extracted successively with ether, ethyl acetate, butanol and water. The ethyl acetate fraction was only effective in inhibition of Cu(+2)-mediated LDL oxidation. The column chromatographic separation led to isolation of eight pure compounds; namely, ursolic acid, hyperoside, **isoquercitrin**, epicatechin, chlorogenic acid, **quercetin**, **rutin** and protocatechuic acid. All of these phenolic compounds, except ursolic acid, were protective to human LDL from Cu(+2)-mediated LDL oxidation. They were also effective in preventing the peroxy free radical-induced oxidation of .alpha.-tocopherol in human LDL. The inhibitory effect of these compounds on oxidation of LDL and

.alpha.-tocopherol was dose-dependent at concentrations ranging from 5 to 40 .mu.M. In addition, supplementation of 2% hawthorn fruit powder significantly elevated serum .alpha.-tocopherol by 18-20% in rats fed a 30% polyunsaturated canola oil diet, as compared with the control. The present results suggest that part of the mechanism for cardiovascular protective effects of hawthorn fruit might also involve the direct protection to human LDL from oxidation or indirect protection via maintaining the concentration of .alpha.-tocopherol in human LDL.

L18 ANSWER 17 OF 32 EMBASE
ACCESSION NUMBER: 2000192732 EMBASE
TITLE: Biochemical activities of extracts from Hypericum perforatum L. - 5th communication: Dopamine-.beta.-hydroxylase-product quantification by HPLC and inhibition by hypericins and flavonoids.
AUTHOR: Denke A.; Schempp H.; Weiser D.; Elstner E.F.
CORPORATE SOURCE: Dr. E.F. Elstner, Technische Universitat Munchen, Lehrstuhl
fur Phytopathologie, Labor fur Angewandte Biochemie, 85350 Freising-Weihenstephan, Germany
SOURCE: Arzneimittel-Forschung/Drug Research, (2000) 50/5 (415-419).
Refs: 13
ISSN: 0004-4172 CODEN: ARZNAD
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English; German
AB Extracts from the herb 'St. John's wort' (Hypericum perforatum L.) exhibit
beneficial effects on patients suffering from mental depressions. Lack of catecholamine neurotransmitters may be one biochemical mechanism for this problem under discussion. It has been recently reported that alcoholic extracts from Hypericum perforatum inhibit dopamine-.beta.-hydroxylase (D-.beta.-H) with an I50 of 0.1 .mu.mol/l on the basis of total hypericin content and with an I50 of 21 .mu.mol/l with pure commercial hypericin. As
test system polarographic determination of oxygen uptake with tyramine as a substrate analogue was used. In the present paper the quantification of the enzymatic activity and the potential influence of inhibitors are reported using dopamine as substrate and product (noradrenaline) quantification by HPLC. With this test system it could be shown that D-.beta.-H is strongly inhibited by pseudohypericin (I50 = approx. 3 .mu.mol/l) and hypericin (I50 = approx. 5 .mu.mol/l), whereas the I50-values of various flavonoids (quercitrin, **isoquercitrin**, hyperoside, **rutin**, **quercetin**, amentoflavone, kaempferol) are in the range of 50 .mu.mol/l or higher.

L18 ANSWER 18 OF 32 EMBASE
ACCESSION NUMBER: 2000066305 EMBASE
TITLE: Flavonoids from Hypericum perforatum show antidepressant activity in the forced swimming test.
AUTHOR: Butterweck V.; Jurgenliemk G.; Nahrstedt A.; Winterhoff H.
CORPORATE SOURCE: Dr. V. Butterweck, Westfalische Wilhelms-Universitat, Inst.
fur Pharmakologie/Toxikologie, Domagkstr. 12, D-48149 Munster, Germany. butterv@uni.muenster.de
SOURCE: Planta Medica, (2000) 66/1 (3-6).

Refs: 13
ISSN: 0032-0943 CODEN: PLMEAA
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
032 Psychiatry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB It has been shown recently that a flavonoid fraction (fraction II) obtained from a crude extract of Hypericum perforatum (St. John's wort) was remarkably active in the forced swimming test (FST). Fraction II was further separated using MLCCC to give fractions IIa and IIb. Both fractions proved to be active in the FST at different dosages. Further separation of fraction IIa by preparative HPLC yielded fraction IIa1 which mainly was composed of hyperoside, isoquercitrin, miquelianin and quercitrin, and fraction IIa2 which contained small amounts of hyperoside and astilbin, while most compounds were not known. Both fractions were active after acute treatment in the FST. Isolates obtained from these fractions including hyperoside, **isoquercitrin**, quercitrin, miquelianin, the aglycone **quercetin** and astilbin, were tested for activity in the FST. Except for quercetin, quercitrin and astilbin all compounds were active. To exclude false positive results in the FST the validity was checked in open field experiments and in the FST after 12 days of daily treatment.

L18 ANSWER 19 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97137145 EMBASE
DOCUMENT NUMBER: 1997137145
TITLE: Glycosylated flavones as selective inhibitors of topoisomerase IV.
AUTHOR: Bernard F.-X.; Sable S.; Cameron B.; Provost J.; Desnottes J.-F.; Crouzet J.; Blanche F.
CORPORATE SOURCE: F. Blanche, Department of Molecular Microbiology, Rhone-Poulene Rorer S.A., 94403 Vitry-sur-Seine Cedex, France. francis.blanche@rp.fr
SOURCE: Antimicrobial Agents and Chemotherapy, (1997) 41/5 (992-998).
Refs: 35
ISSN: 0066-4804 CODEN: AMACCQ
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Three flavonoids which promoted Escherichia coli topoisomerase IV-dependent DNA cleavage were isolated from cottonseed flour and identified as quercetin 3-O-.beta.-D-glucose-[1,6]-O-.alpha.-L-rhamnose (rutin), quercetin 3-O-.beta.- D-galactose-[1,6]-O-.alpha.-L-rhamnose, and quercetin 3-O-.beta.-D-glucose (**isoquercitrin**). The most active one (**rutin**) also inhibited topoisomerase IV-dependent decatenation activity (50% inhibitory concentration, 64 .mu.g/ml) and induced the SOS response of a permeable E. coli strain. Derivatives of quercetin glycosylated at position C-3 were shown to induce two site-specific DNA cleavages of pBR322 DNA, which were mapped by DNA sequence analysis to the gene encoding resistance in tetracycline. Cleavage at these sites was hardly detectable in cleavage reactions with quercetin or

fluoroquinolones. None of the three flavonoids isolated from cottonseeds had any stimulatory activity on E. coli DNA gyrase-dependent or calf thymus topoisomerase independent DNA cleavage, and they were therefore specific to topoisomerase IV. These results show that selective inhibitors of topoisomerase IV can be derived from the flavone structure. This is the first report on a DNA topoisomerase inhibitor specific for topoisomerase IV.

L18 ANSWER 20 OF 32 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96012616 EMBASE
DOCUMENT NUMBER: 1996012616
TITLE: Studies on the constituents of Clematis species. VI. The constituents of Clematis stans SIEB et ZUCC.
AUTHOR: Kizu H.; Shimana H.; Tomimori T.
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Hokuriku University, 3 Ho,Kanagawa-machi, Kanazawa 920-11, Japan
SOURCE: Chemical and Pharmaceutical Bulletin, (1995) 43/12 (2187-2194).
ISSN: 0009-2363 CODEN: CPBTAL
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB From the roots of Clematis stans three new oleanane-type triterpenoid saponins named clemastanoside A, B and C, and two new lignan glycosides named clemastanin A and B, have been isolated together with three known triterpenoid saponins, huzhangoside B, C and D, and three known lignan glycosides, (+)-lariciresinol 4-O-.beta.-D-glucopyranoside, (+)-lariciresinol 4'- O-.beta.-D-glucopyranoside and (+)-pinoresinol 4,4'-O-bis-.beta.-D-glucopyranoside. In addition, from the leaves, four new oleanane-type triterpenoid saponins, named clemastanoside D, E, F and G, have been isolated together with five known triterpenoid saponins, hederasaponin B, kizutasaponin K12, huzhangoside B, sieboldianoside B and huzhangoside D, and three known flavonoids, **isoquercitrin**, ratin and **quercetin** 3-O-.beta.-D-glucuronopyranoside. The structures of the new compounds were elucidated based on chemical and physicochemical evidence as follows: clemastanoside A, 3-O-.beta.-D- ribopyranosyl-(1.fwdarw.3)-.alpha.-L-rhamnopyranosyl-(1.fwdarw.2)-.alpha.-L-

L14 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:504053 CAPLUS
DOCUMENT NUMBER: 119:104053
TITLE: Polymeric sorbents with conformationally mobile groups
AUTHOR(S): Zolotov, Yu. A.; Tsizin, G. I.; Formanovskii, A. A.; Mikhura, I. V.; Evtikova, G. A.; Belyaeva, V. K.; Marov, I. N.
CORPORATE SOURCE: Mosk. Gos. Univ., Moscow, Russia
SOURCE: Koord. Khim. (1992), 18(10-11), 1113-19
CODEN: KOKHDC; ISSN: 0132-344X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB A hypothesis is presented concerning the structures of the most effective complex-forming polymeric sorbents with grafted functional groups. It is shown that the effectiveness of such sorbents is related to the conformational mobilities of the grafted polydentate ligands. Sorbents were synthesized from cellulose or cross-linked polystyrene with conformationally mobile aminoacetate, aminomethylphosphonate, or dithiocarbamate ligand groups and the sorption properties with respect to Cu(II), VO(II), or Ru(III) were established. The ESR spectra of the free or grafted ligand complexes were detd. to establish the nature of the metal-ligand coordination.

IT 1429-50-1DP, transition metal complexes 9003-70-7DP, reaction products with polyfunctional ligands, transition metal complexes 9004-34-6DP, Cellulose, reaction products with polyfunctional ligands, transition metal complexes 40423-02-7DP, reaction products with cellulose, transition metal complexes **108751-10-6DP**, reaction products with cellulose, transition metal complexes 119165-63-8DP, reaction products with polystyrene, transition metal complexes 149287-81-0DP, reaction products with cellulose or polystyrene, transition metal complexes 149287-82-1DP, reaction products with cellulose, transition metal complexes 149287-83-2DP, reaction products with cellulose, transition metal complexes 149287-84-3DP, reaction products with polystyrene, transition metal complexes 149287-85-4DP, reaction products with polystyrene, transition metal complexes
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, ESR study of)